

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: Carmeuse Lime & Stone, Inc.
Mailing Address 9222 Springdale Road, Maysville, Kentucky 41056

is authorized to construct and operate a lime manufacturing facility

Source Name: Carmeuse Lime & Stone, Inc. Maysville Operation
Mailing Address: Same as above

Source Location: 9222 Springdale Road, Maysville

Permit Number: V-05-004
Log Number: 50249
Activity ID #: APE20040001
Review Type: Construction / Operating, Title V, PSD
Source ID #: 21-161-00010
AI Number: 3003
SIC Code: 3274

Regional Office: Ashland Regional Office
1550 Wolohan Drive, Suite 1
Ashland, KY 41102-8942
(606) 929-5285

County: Mason

**Application
Complete Date:** December 13, 2004

Issuance Date:

Expiration Date:

**John S. Lyons, Director
Division for Air Quality**

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application, the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in Regulation 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**LIMESTONE HANDLING:****Processing:**

- 01 (2) **Conveyor and Transfer Points (#LS-2) (42" x 220')**
 (Maximum Process Rate – 1050 tons/hour)
 (From Conveyor #LS-1 to Stockpile)
 Constructed: 1995
 Control: Moist Material
- (24) **Stockpile (8 x 0 LM ROM)**
 (Maximum Process Rate – 1050 tons/hour)
 (From Conveyor #LS-2 to Conveyor #LS-3 via Underground Feeders)
 Control: Moist Material
- (4) **Conveyor and Transfer Points (#LS-3) (48" x 555')**
 (Maximum Process Rate – 2100 tons/hour)
 [From Underground Feeders (8 x 0 Stockpile) to 8' x 20' Double-Deck Screen]
 Constructed: 1976
 Control: Moist Material
- (4) **Screen (8' x 20' Double-Deck)**
 (Maximum Rated Capacity – 1120 tons/hour)
 (From Conveyor #LS-3 to Secondary Cone Crusher and Conveyors #LS-5 and #LSF)
 Constructed: 1976
 Control: Moist Material
- (4) **Secondary Crusher (4 ¼ Standard Cone)**
 (Maximum Rated Capacity – 350 tons/hour)
 (From Screen to Conveyor #LS-4)
 Constructed: 1976
 Control: Moist Material
- (4) **Conveyor and Transfer Points (#LS-4) (36" x 265')**
 (Maximum Process Rate – 1120 tons/hour)
 (From Secondary Crusher to Conveyor #LS-3)
 Constructed: 1976
 Control: Moist Material

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Processing: (Continued)**

- 01 (24) **Stockpile (2½ x ½) (Kiln Feed)**
(Maximum Process Rate – 1000 tons/hour)
(From Conveyor #LS-5 to Conveyor #LS-6 via Underground Feeders)
Control: Moist Material
- (26) **Conveyor and Transfer Points (#LS-6) (30” x 550’)**
(Maximum Process Rate – 825 tons/hour)
[From Underground Feeders (2 ½ x ½ Stockpile) to Conveyors #LS-6A and #LS-7]
Constructed: 1976
Control: Moist Material
- (26) **Conveyor and Transfer Points (#LS-6A) (30” x 210’)**
(Maximum Process Rate – 825 tons/hour)
(From Conveyor #LS-6 to Screen)
Constructed: 1976
Control: Moist Material
- (26) **Screen (8’ x 20’ Hewitt Robins Single-Deck) (Rescreen)**
(Maximum Rated Capacity – 850 tons/hour)
(From Conveyor #LS-6A to Conveyors #LSF-1 and #LS-7)
Constructed: 1976
Control: Moist Material
- (28/30) **Conveyor and Transfer Points (#LS-7) (30” x 725’)**
(Maximum Process Rate – 825 tons/hour)
(From Single-Deck Screen and Conveyor #LS-6 to Kiln #2 Stone Bin and Conveyors #LS-8 and #LS-9)
Constructed: 1976
Control: Moist Material
- (28) **Kiln #2 Stone Bin (Stone Dump Hopper and Feeder)**
(Maximum Process Rate – 825 tons/hour)
(From Conveyor #LS-7 to Kiln #2)
Constructed: 1976
Control: Moist Material

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Processing: (Continued)**

- 01 (28) **Conveyor and Transfer Points (#LS-8) (36" x 140')**
 (Maximum Process Rate – 825 tons/hour)
 (From Conveyor #LS-7 to Kiln #1 and Kiln #3 Stone Bins)
 Constructed: 1976
 Control: Moist Material
- (28) **Kiln #1 Stone Bin (Stone Dump Hopper and Feeder)**
 (Maximum Process Rate – 825 tons/hour)
 (From Conveyor #LS-8 to Kiln #1)
 Constructed: 1976
 Control: Moist Material
- (28) **Kiln #3 Stone Bin (Stone Dump Hopper and Feeder)**
 (Maximum Process Rate – 825 tons/hour)
 (From Conveyor #LS-8 to Kiln #3)
 Constructed: 1976
 Control: Moist Material
- (26) **Conveyor and Transfer Points (#LSF-1) (24" x 208')**
 (Maximum Process Rate – 100 tons/hour)
 (From Screen to Stockpile)
 Constructed: 1976
 Control: Moist Material
- (24) **Stockpile (Rescreen) (From Conveyor #LSF-1)**
 (Maximum Process Rate – 100 tons/hour)
 Control: Moist Material
- (-) **Loadout (Rescreen)**
 (Maximum Process Rate – 100 tons/hour)
 Control: Moist Material
- (4) **Conveyor and Transfer Points (#LSF) (24" x 375')**
 (Maximum Process Rate – 190 tons/hour)
 (From 8' x 20' Double-Deck Screen to Stockpile)
 Constructed: 1976
 Control: Moist Material

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Processing: (Continued)**

- 01 (24) **Stockpile ($\frac{1}{2}$ x 0)**
(Maximum Process Rate – 190 tons/hour)
(From Conveyor #LSF to Conveyors #F-4 and F-6 via Underground Feeders)
Control: Moist Material
- (8) **Conveyor and Transfer Points (#F-6) (24" x 150')**
(Maximum Process Rate – 200 tons/hour)
[From Underground Feeders ($\frac{1}{2}$ x 0 Stockpile) to Washplant Feed Conveyor #C-003]
Constructed: 1976
Control: Moist Material
- (8) **Conveyor and Transfer Points (#B) (24" x 150')**
(Maximum Process Rate – 200 tons/hour)
(From Screen #S-002 to Double-Deck Screen)
Constructed: 1976
Control: Moist Material
- (8) **Screen (8' x 16' Triple-Deck)**
(Maximum Rated Capacity – 200 tons/hour)
(From Conveyor #B to Oversize Stockpile, Conveyors #L and #F, and Mine Disposal Screen)
Constructed: 1976
Control: Moist Material
- (24) **Stockpile (Oversize) (From Triple-Deck Screen)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material
- (-) **Truck Loadout (Oversize)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material
- (-) **Screen (8' x 16' Parallel Single-Deck)**
(Maximum Rated Capacity – 100 tons/hour)
(From Triple-Deck Screen to Mine Disposal)
Constructed: 1976
Control: Moist Material

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Processing: (Continued)**

- 01 (10) **Conveyor and Transfer Points (#L) (24" x 125')**
(Maximum Process Rate – 200 tons/hour)
(From Triple-Deck Screen to Conveyor #H-2)
Constructed: 1976
Control: Moist Material
- (10) **Conveyor and Transfer Points (#H-2) (24" x 200')**
(Maximum Process Rate – 200 tons/hour)
(From Conveyor #L to Stockpile)
Constructed: 1976
Control: Moist Material
- (24) **Stockpile (8s) (From Conveyor #H-2)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material
- (-) **Truck Loadout (8s)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material
- (12) **Conveyor and Transfer Points (#F) (24" x 100')**
(Maximum Process Rate – 200 tons/hour)
(From Triple-Deck Screen to Conveyor #H-1)
Constructed: 1976
Control: Moist Material
- (12) **Conveyor and Transfer Points (#H-1) (24" x 200')**
(Maximum Process Rate – 200 tons/hour)
(From Conveyor #F to Sinter Stockpile)
Constructed: 1976
Control: Moist Material
- (24) **Stockpile (Sinter) (From Conveyor #H-1)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material
- (-) **Truck Loadout (Sinter)**
(Maximum Process Rate – 200 tons/hour)
Control: Moist Material

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Barge and Truck Loadout:**

- 03 (18/20) **Conveyor and Transfer Points (#F-4) (24" x 125')**
(Maximum Process Rate – 625 tons/hour)
[From Underground Feeders (½ x 0 Stockpile) to Conveyors #F-1 and #F-5]
Constructed: 1976
Control: Moist Material
- (18) **Conveyor and Transfer Points (#F-5) (24" x 100')**
(Maximum Process Rate – 625 tons/hour)
(From Conveyor #F-4 to Truck Loading Hopper)
Constructed: 1976
Control: Moist Material
- (18) **Truck Loading Hopper**
(Maximum Process Rate – 625 tons/hour)
(From Conveyor #F-5 to Truck Loadout via Spout)
Constructed: 1976
Control: Moist Material
- (-) **Truck Loadout**
(Maximum Process Rate – 625 tons/hour)
Control: Moist Material
- (20) **Receiving Hopper #1 (Reclaim)**
(Maximum Process Rate – 625 tons/hour)
(End-Loader to Conveyor #F-1)
Constructed: 1976
Control: Moist Material
- (20) **Receiving Hopper #2 (Reclaim)**
(Maximum Process Rate – 625 tons/hour)
(End-Loader to Conveyor #F-1)
Constructed: 1976
Control: Moist Material
- (20) **Conveyor and Transfer Points (#F-1) (30" x 900')**
(Maximum Process Rate – 625 tons/hour)
(From Reclaim Hoppers #1 and #2 and Conveyor #F-4 to Conveyor #F-2)
Constructed: 1976
Control: Moist Material

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING: (CONTINUED)****Barge and Truck Loadout: (Continued)**

- 03 (20) **Receiving Hopper #3 (Reclaim)**
 (Maximum Process Rate – 625 tons/hour)
 (End-Loader to Conveyor #F-2)
 Constructed: 1976
 Control: Moist Material
- (20) **Conveyor and Transfer Points (#F-2) (30” x 675’)**
 (Maximum Process Rate – 625 tons/hour)
 (From Reclaim Hopper #3 and Conveyor #F-1 to Conveyor #F-3)
 Constructed: 1976
 Control: Moist Material
- (20) **Conveyor and Transfer Points (#F-3) (30” x 720’)**
 (Maximum Process Rate – 625 tons/hour)
 (From Conveyor #F-2 to Barge Loadout)
 Constructed: 1976
 Control: Wet Material
- (20) **Barge Loadout (From Conveyor #F-3)**
 (Maximum Process Rate – 625 tons/hour)
 Constructed: 1976
 Control: Moist Material

Truck Loadout:

- 04 (14) **Receiving Hopper**
 (Maximum Process Rate – 150 tons/hour)
 (End-Loader to Feed Conveyor)
 Constructed: 1976
 Control: Moist Material
- (14) **Conveyor and Transfer Points (Sorbent Feed) (24” x 150’)**
 (Maximum Process Rate – 150 tons/hour)
 (From Receiving Hopper to Rotary Dryer)
 Constructed: 1976
 Control: Moist Material
- (16) **Truck Loadout**
 (Maximum Process Rate – 150 tons/hour)
 Control: None

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

LIME HANDLING:

Reject System:

- 13 (52) **Receiving Hopper**
(Maximum Process Rate – 60 tons/hour)
(From End-Loader to Lime Reject System)
Constructed: 1995
Control: None

Reclaim System:

- 14 (50) **Receiving Hopper (Reclaim)**
(Maximum Process Rate – 60 tons/hour)
(From End-Loader to Lime Reclaim System)
Constructed: 1976
Control: None
- (51) **Conveyor and Transfer Points (#R-3) (24” x 125’)**
(Maximum Process Rate – 60 tons/hour)
(From Reject Bin and Reclaim Hopper to Conveyor #R-1)
Constructed: 1994
Control: None

From Storage Silos to Screening Operation and Loadouts:

- 16 (68) **Conveyor and Transfer Points (#L-15) (24” x 125’)**
(Maximum Process Rate – 300 tons/hour)
(From Storage Bin to Conveyor #L-2)
Constructed: 1978
Control: None

HAUL ROAD AND YARD AREA:

- 18 (72) **Haul Road and Yard Area (Paved)**
(Maximum Process Rate – 1125 tons/hour)
Constructed: 1976
Control: Water Spray
- (72) **Haul Road and Yard Area (Unpaved)**
(Maximum Process Rate – 1125 tons/hour)
Constructed: 1976
Control: Water Spray

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

LANDFILL:

- | | | |
|----|-----|--|
| 19 | (-) | Landfill (Rejects and Waste Material)
(Maximum Process Rate – 175 tons/hour)
Constructed: 1995
Control: Water Spray |
|----|-----|--|

ADDITIONS TO THE SOURCE:

LIMESTONE HANDLING:

Processing:

- 20 (4) Conveyor and Transfer Points (#LS-5) (36" x 530')
(Maximum Process Rate – 1000 tons/hour)
(From 8' x 20' Double-Deck Screen to Stockpile)
Constructed: 2004
Control: Moist Material**

Wash Plant:

- | | | |
|----|-------|--|
| 22 | (100) | <p>Conveyor and Transfer Points (#C-004)
 (Maximum Process Rate – 400 tons/hour)
 (From Screen #S-001 to Fines Stockpile)
 Constructed: 2004
 Control: Moist Material</p> |
| | (100) | <p>Stockpile (Fines) (From Conveyor #C-004)
 (Maximum Process Rate – 400 tons/hour)
 Control: Moist Material</p> |
| | (100) | <p>Truck Loadout (Fines)
 (Maximum Process Rate – 300 tons/hour)
 Control: Moist Material</p> |
| | (100) | <p>Stockpile (1/2 x 1/8) (From Screen #S-002)
 (Maximum Process Rate – 400 tons/hour)
 Control: Moist Material</p> |
| | (100) | <p>Truck Loadout (1/2 x 1/8)
 (Maximum Process Rate – 300 tons/hour)
 Control: Moist Material</p> |

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:010, Fugitive emissions, applies to each of the affected facilities listed above.

1. Operating Limitations:

N/A

2. Emission Limitations:

- a. The materials processed at each affected facility listed above shall be controlled with wet suppression, enclosures, and/or dust collection equipment so as to comply with the requirements specified in Regulation 401 KAR 63:010, Fugitive emissions, Section 3. Standards for fugitive emissions.
- b. Pursuant to Regulation 401 KAR 63:010, Section 3 (1), no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - 1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - 2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - 3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
 - 4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - 5) The maintenance of paved roadways in a clean condition;
 - 6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- c. Pursuant to Regulation 401 KAR 63:010, Section 3 (2), no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

- d. Pursuant to Regulation 401 KAR 63:010, Section 3 (3), when dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the Secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or air-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.
- e. Pursuant to Regulation 401 KAR 63:010, Section 4, Additional Requirements, in addition to the requirements of Section 3 of this regulation, the following shall apply:
 - 1) Pursuant to Regulation 401 KAR 63:010, Section 4 (1), open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered at all times when in motion.
 - 2) Pursuant to Regulation 401 KAR 63:010, Section 4 (4), no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

Compliance Demonstration Method:

For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:

Pursuant to Regulation 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation in accordance with the manufacturer's specifications and/or standard operating procedures at any time an affected facility for which the equipment and measures are designed is operated, except as provided by Regulation 401 KAR 50:055, Section 1. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated control equipment is not.

3. Testing Requirements:

See Section G, Condition (d)5, 7, and 8.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 22 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- b. See Section F, Conditions 2, 7, and 8.

5. Specific Recordkeeping Requirements:

- a. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F, Condition 2.
- b. A log shall be kept of all routine and non-routine maintenance performed on each control device.

6. Specific Reporting Requirements:

- a. See Section F, Conditions 5, 6, 7, 8, 9, and 10.
- b. See Section G, Conditions (a)4 and 5, (d)2, and (f)1.

7. Specific Control Equipment Operating Conditions:

If any control method(s) proposed in the permit application prove to be inadequate to meet the emission requirements listed in the permit, the Division reserves the right to require additional controls, or another form of control, be utilized to meet the permit requirements.

8. Alternate Operating Schedule:

N/A

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIMESTONE HANDLING:****Processing:**

- 02 (2) **Conveyor and Transfer Points (#LS-1) (42" x 3025')**
 (Maximum Process Rate – 1050 tons/hour)
 (From Underground Mine to Conveyor #LS-2)
 Constructed: 1995
 Control: Moist Material
- (30) **Conveyor and Transfer Points (#LS-9) (30" x 200')**
 (Maximum Process Rate – 825 tons/hour)
 (From Conveyor #LS-7 to Surge Bin)
 Constructed: 1997
 Control: Moist Material
- (30) **Surge Bin**
 (Maximum Process Rate – 825 tons/hour)
 (From Conveyor #LS-9 to Conveyor #LS-10)
 Constructed: 1997
 Control: Enclosed
- (30) **Conveyor and Transfer Points (#LS-10) (30" x 100')**
 (Maximum Process Rate – 660 tons/hour)
 (From Surge Bin to Kiln #4 Stone Bin)
 Constructed: 1997
 Control: Moist Material
- (30) **Kiln #4 Stone Bin (Stone Dump Hopper and Feeder)**
 (Maximum Process Rate – 660 tons/hour)
 (From Conveyor #LS-10 to Kiln #4)
 Constructed: 1997
 Control: Moist Material

Truck Loadout:

- 05 (16) **Conveyor and Transfer Points (Product) (24" x 250')**
 (Maximum Process Rate – 150 tons/hour)
 (From Rotary Dryer to Truck Loading Hopper)
 Constructed: 1991
 Control: Dust Collector (Pulse-Air)
 (Model: Not Available)

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**ADDITIONS TO THE SOURCE:****LIMESTONE HANDLING:****Processing:**

- 21 (4) **Conveyor and Transfer Points (#LS-5C) (42" x 22')**
(Maximum Process Rate – 1000 tons/hour)
(From 8' x 20' Double-Deck Screen to Conveyor #LS-5)
Constructed: 2004
Control: Moist Material

Wash Plant:

- 23 (100) **Conveyor and Transfer Points (#C-003)**
(Maximum Process Rate – 400 tons/hour)
(From Conveyor #F-6 to Screen #S-001)
Constructed: 2004
Control: Moist Material
- (100) **Screen (#S-001)**
(Maximum Rated Capacity – 400 tons/hour)
(From Conveyor #C-003 to Conveyors #C-004 and #C-005)
Constructed: 2004
Control: Moist Material
- (100) **Conveyor and Transfer Points (#C-005)**
(Maximum Process Rate – 400 tons/hour)
(From Screen #S-001 to Screen #S-002)
Constructed: 2004
Control: Moist Material
- (100) **Screen (#S-002)**
(Maximum Rated Capacity – 400 tons/hour)
[From Conveyor #C-005 to Conveyor #B and Stockpile 1/2 x 1/8]
Constructed: 2004
Control: Moist Material

APPLICABLE REGULATIONS:

Regulation 401 KAR 60:670, New nonmetallic mineral Processing plants (40 CFR 60, Subpart OOO as modified by Section 3 of 401 KAR 60:670), which applies to emission units that commenced construction, reconstruction, or modification after August 31, 1983.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**APPLICABLE REGULATIONS: (CONTINUED)**

40 CFR 63, Subpart AAAAA, National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, which applies to all the emission units listed above. The compliance date for existing affected sources, emission points 02 (2), (30), and 05 (16); is no later than January 5, 2007. The compliance date for new affected sources started after January 5, 2004, emission points 21 (4) and 23 (100), is upon startup.

1. Operating Limitations:

Pursuant to 40 CFR 63, Subpart AAAAA, Table 2, a written operations, maintenance, and monitoring (OM&M) plan must be prepared. The plan must include the items listed in 40 CFR 63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.

2. Emission Limitations:

Fugitive emissions from the two storage bins, emission points 02 (30); the seven conveyor and transfer points, emission points 02 (2), (30), 05 (16), 12 (4), and 24 (100); and the two screens, emission point 24 (100); shall not exhibit greater than ten percent (10%) opacity, each, as specified in Regulation 401 KAR 60:670 [40 CFR 60.672(b)] and 40 CFR 63, Subpart AAAAA, table 1.

Compliance Demonstration Method:

- a. In determining compliance with the opacity standards as listed above, the owner or operator shall use Method 9 and the procedures as described in 40 CFR 60.11 and 40 CFR 60.675(c), except for wet processes, which are exempt from Method 9, as specified in 40 CFR 60.675(h)(1) and (2).
- b. Compliance with the emission standards listed in 40 CFR 63, Subpart AAAAA was be demonstrated:
 - 1) For new affected sources starting after January 5, 2004, no later than 180 days after startup utilizing the tests and procedures listed in Table 4.
 - 2) For existing affected sources, no later than January 5, 2007 utilizing the tests and procedures listed in Table 4.

3. Testing Requirements:

- a. Pursuant to 40 CFR 63.7110(a), all applicable performance tests on an existing affected source must be complete by January 5, 2007, according to the provisions in 40 CFR 63.7(a)(2) and 40 CFR 63.7114.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements: (Continued)

- b. Pursuant to 40 CFR 63.7111, a performance test must be conducted within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.
- c. Pursuant to 40 CFR 63.7112(c), performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 63.7(e)(1).
- d. Pursuant to 40 CFR 63.7112(h), performance tests results must be documented in complete test reports that contain the information required by 40 CFR 63.7112(h)(1) through (10), as well as all other relevant information. The plan to be followed during testing must be made available to the Division at least 60 days prior to the testing.
- e. Pursuant to 40 CFR 63.7112(k), for each building enclosing any Processed Stone Handling (PSH) operations that is subject to a Visual Emissions (VE) limit, a VE check must be conducted according to item 18 in Table 4 of 40 CFR 63, Subpart AAAAA, and in accordance with 40 CFR 63.7112(k)(1) through (3).
- f. See Attachments, Table 3, for initial compliance with emission limits and Table 4, for performance test requirements under 40 CFR 63, Subpart AAAAA.
- g. See Section G, Condition (d)5, 7, and 8.

4. Specific Monitoring Requirements:

- a. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- b. See Section F, Condition 2.
- c. Pursuant to 40 CFR 63.7121(e), for any vents subject to an opacity limit and each PSH operation subject to an opacity limit as specified in Table 1 of 40 CFR 63, Subpart AAAAA, a VE check must be conducted according to item 1 in Table 6 and the guidelines specified in 40 CFR 63.7121(e)(1) through (3).

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

- d. See Attachments, Table 6, for additional monitoring requirements under 40 CFR 63, Subpart AAAAA.

5. Specific Recordkeeping Requirements:

- a. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F, Condition 2.
- b. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- c. Records shall be kept as required under 40 CFR 63.7132:
 - 1) Pursuant to 40 CFR 63.7132 (a)(1) through (3):
 - a) A copy of each notification and report submitted to comply with 40 CFR 63, Subpart AAAAA, including all documentation supporting any Initial Notification or Notification Compliance Status submitted in accordance to the requirements in 40 CFR 63.10(b)(2)(xiv),
 - b) The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - c) Records of performance tests, performance evaluations, and opacity and VE observations.
 - 2) Pursuant to 40 CFR 63.7132 (b), records in 40 CFR 63.6(h)(6) must be kept for VE observations.
 - 3) Pursuant to 40 CFR 63.7132 (c), records required by Tables 5 and 6 of 40 CFR 63, Subpart AAAAA, must be kept to show continuous compliance with each emission limitation that applies to the facility.
 - 4) Pursuant to 40 CFR 63.7132 (d), records must be kept which document the basis for the initial applicability determination as required under 40 CFR 63.7081.
- d. See 40 CFR 63.7133 for additional recordkeeping requirements.
- e. See Section F, Conditions 1 and 2.

6. Specific Reporting Requirements:

- a. See 40 CFR 63.7130, 63.7131, and Table 7 to Subpart AAAAA for reporting requirements under 40 CFR 63, Subpart AAAAA.
- b. See Section F, Conditions 5, 6, 7, 8, 9, 10 and 11.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements: (Continued)

- c. See Section G, Conditions (a)4 and 5, (d)2, and (f)1.

7. Specific Control Equipment Operating Conditions:

If any control method(s) proposed in the permit application prove to be inadequate to meet the emission requirements listed in the permit, the Division reserves the right to require additional controls, or another form of control, be utilized to meet the permit requirements.

8. Alternate Operating Schedule:

N/A

9. Compliance Schedule:

- a. Pursuant to 40 CFR 63.7083(a)(2), new affected sources started after January 5, 2004, must comply with the applicable emission limitations upon startup and all applicable performance tests must be completed no later than 180 days after startup.
- b. Pursuant to 40 CFR 63.7083(b), existing affected sources must comply with the applicable emission limitations and all applicable performance tests must be completed no later than January 5, 2007.

10. Compliance Certification Requirements:

See Attachments, Table 3, for initial compliance with emission limits.

LIMESTONE HANDLING: (CONTINUED)

Truck Loadout:

06	(16)	Truck Loading Hopper (Ashland Silo) (Maximum Process Rate – 150 tons/hour) (From Product Conveyor to Truck Loadout) Constructed: 1991 Control: Baghouse (Pulse-Air) (Model: Not Available)
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APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations, which applies to emission units constructed on or after July 2, 1975.

1. Operating Limitations:

N/A

2. Emission Limitations:

- a. Pursuant to Regulation 401 KAR 59:010, Section 3(2) and Appendix A, emissions of particulate matter from the truck loading hopper (Ashland Silo) [emission point 06 (16)] shall not exceed 38.59 lbs/hr.

As determined by the following equations using the process weight rate (in units of tons/hr).

For process rates 1,000 lbs/hr or less: $E = 2.34$

For process rates up to 60,000 lbs/hr: $E = 3.59 P^{0.62}$

For process rates in excess of 60,000 lbs/hr: $E = 17.31 P^{0.16}$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hr

- b. Pursuant to Regulation 401 KAR 59:010, Section 3, any continuous emissions into the open air shall not equal or exceed twenty percent (20%) opacity.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

Compliance Demonstration Method:

- a. Compliance with the hourly process emission limit shall be determined as follows:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 * / (Hours of operation per month)] x (1 – control efficiency)

- * If an Emission Factor other than that taken from AP-42 is used, documentation on how that emission factor was derived must be submitted to the Division's Central Office for approval within 6 months of issuance of the proposed permit.

- b. Compliance with the opacity limits shall be determined as follows:

- 1) In determining compliance with the opacity standard as listed above, the owner or operator shall use Reference Method 9 and the procedures as described in 40 CFR 60.11.
- 2) If any of the emission units associated with a baghouse are in operation during any period of malfunction of the associated baghouse, the permittee shall determine compliance through maintenance of the records required by Item e. under **5. Specific Recordkeeping Requirements** below.

3. Testing Requirements:

Pursuant to Regulations 401 KAR 50:055, General compliance requirements; 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 59:010, Section 4, shall be conducted as required by the Division. The Reference Methods used to determine compliance with the aforementioned emission standards are as follows:

- a. Reference Method 1 – Selection of sample and velocity traverses.
- b. Reference Method 2 – Velocity and volumetric flow rate.
- c. Reference Method 3 – Gas analysis.
- d. Reference Method 9 – Opacity of continuous emissions.
- e. Reference Method 5 shall be used for the emission rates of particulate matter and the associated moisture content. For Reference Method 5:
 - 1) Reference Method 1 – Select the sampling site and number of traverse sampling points.
 - 2) Sampling time for each run shall be at least sixty (60) minutes.
 - 3) Minimum sample volume shall be 0.85 dscm [thirty (30) dscf].
 - 4) Smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the Cabinet.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the following parameters:
 - 1) The monthly amount of material processed by each emission point.
 - 2) The monthly hours of operation (hours operated/month) of each emission point.
 - 3) The hourly pollutant emission rates.
- b. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- c. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a monitoring device to determine the static pressure drop across each baghouse. This monitoring device will be read and this reading recorded once a day during the operation of the unit.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information for the dust collector:
 - 1) The design and/or manufacturer's specifications.
 - 2) The operational procedures and preventative maintenance records.
 - 3) Daily records of the pressure drop across the baghouse during all periods of operation.
 - 4) During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calendar day) log shall be kept of whether any air emissions were visible from the stack associated with the baghouse.
- b. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F. Condition 2.
- c. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- d. See Section F, Conditions 1 and 2.
- e. See **4. Specific Monitoring Requirements** above for additional recordkeeping requirements.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8, 9, 10, and 11.

7. Specific Control Equipment Operating Requirements:

- a. The baghouse associated with Emission Point 06 (16) shall control particulate emissions and shall be in place, properly maintained, and in operation in accordance with the manufacturer's specifications and/or standard operating procedures at all times the associated emission points are in use. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated baghouse is not.
- b. See Section E, Condition 1.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**07 (15) Drum Dryer (Diesel, Used Oil, and Propane Fired)
(Maximum Rated Burner Capacity – 49.3 MBtu/hour)**

Constructed: 1991

Control: Baghouse (Pulse-Air)
 (Joy Manufacturing)**APPLICABLE REGULATIONS:**

State Regulation 401 KAR 59:015, New indirect heat exchangers, which applies to emission units constructed on or after April 9, 1972

1. Operating Limitations:

N/A

2. Emission Limitations:

- a. Pursuant to State Regulation 401 KAR 59:015, Section 4(1)(a), emissions of particulate matter from the drum dryer [emission point 07 (15)] shall not exceed 0.56 lbs/mm BTU.
- b. Pursuant to State Regulation 401 KAR 59:015, Section 4(2), the opacity of visible emissions from the combustion of diesel fuel, used oil, and/or propane shall not exceed twenty percent (20%) except that a maximum of forty percent (40%) opacity shall be permissible for not more than six (6) consecutive minutes during cleaning the fire box or blowing soot.
- c. Pursuant to State Regulation 401 KAR 59:015, Section 5(1)(a), no owner or operator shall cause to be discharged into the atmosphere, any gases which contain sulfur dioxide in excess of 3.0 lbs per million BTU actual heat input for combustion of liquid and gaseous fuels.

Compliance Demonstration Method:

- a. Compliance with the particulate matter and sulfur dioxide emissions (in lbs/mmBtu) shall be determined as follows:

$$\text{Emissions} = \frac{(\text{Total Monthly Fuel Usage}) \times (\text{Emission Factor from AP-42}) *}{(\text{Total Hours of Operation per Month}) \times (\text{Total Hourly Rated Capacity})}$$

- * If an Emission Factor other than that taken from AP-42 is used, documentation on how that emission factor was derived must be submitted to the Division's Central Office for approval within 6 months of issuance of the

proposed permit.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

Compliance Demonstration Method: (Continued)

- a. Diesel fuel usage will be expressed in $\text{lb}/10^3$ gallons with AP-42 Emission Factor from Table 1.3-1. To convert to an energy basis (lb/mmBtu), divide by a heating value of $140 \text{ MMBtu}/10^3$ gallon.
Used Oil usage will be expressed in $\text{lb}/10^3$ gallons with AP-42 Emission Factor from Table 1.11-1. To convert to an energy basis (lb/mmBtu), divide by the heating value of the oil in units of $\text{MMBtu}/10^3$ gallons, if known. If the heating value is not known, and the waste oil is blended with residual oil, divide by a heating value of $150 \text{ MMBtu}/10^3$ gallon. If the waste oil is blended with distillate oil, divide by a heating value of $140 \text{ MMBtu}/10^3$ gallon.
Propane usage will be expressed in $\text{lb}/10^3$ gallons with AP-42 Emission Factor from Table 1.5-1. To convert to an energy basis (lb/mmBtu), divide by a heating value of $91.5 \text{ MMBtu}/10^3$ gallon.
- b. Compliance with the opacity limits shall be determined as follows:
 - 1) In determining compliance with the opacity standard as listed above, the owner or operator shall use Reference Method 9 and the procedures as described in 40 CFR 60.11.
 - 2) If any of the emission units associated with a baghouse are in operation during any period of malfunction of the associated baghouse, the permittee shall determine compliance through maintenance of the records required by Item e. under **5. Specific Recordkeeping Requirements** below.

3. Testing Requirements:

Pursuant to State Regulations 401 KAR 50:055, General compliance requirements; 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in State Regulation 401 KAR 59:015, Section 8, shall be conducted as required by the Division. The Reference Methods used to determine compliance with the aforementioned emission standards are as follows:

- a. Reference Method 1 – Selection of sampling site and sample traverses
- b. Reference Method 3 – Gas analysis to be used when applying Methods 5, 6, and 7.
- c. Reference Method 5 – Concentration of particulate matter and associated moisture content.
- d. Reference Method 6 – Concentration of sulfur dioxide.
- e. Reference Method 9 – Visible Emissions.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements: (Continued)

For Reference Method 5:

- a. Reference Method 1 shall be used to select the sampling site and number of traverse sampling points.
- b. The sampling time for each run shall be at least sixty (60) minutes and the minimum sampling volume shall be 0.85 dscm [thirty (30) dscf].
- c. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature no greater than 160 degrees C (320 degrees F).

For Reference Method 6:

- a. The sampling site shall be the same as that selected for Reference Method 5.
- b. The sampling point in the duct shall be at the centroid of the cross section or at a point no closer to the walls than one (1) meter (3.28 ft).
- c. The sample shall be extracted at a rate proportional to the gas velocity at the sampling port.
- d. The minimum sampling time shall be twenty (20) minutes and the minimum sampling volume shall be 0.02 dscm (0.71 dscf) for each sample.
- e. The arithmetic mean of two (2) samples shall constitute one run.
- f. Samples shall be taken at approximately thirty (30) minute intervals.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the following information:
 - 1) The total monthly fuel usage rate (gallons per month) for each of the fuels listed herein.
 - 2) The total monthly hours of operation (hours operated per month) of the burner for each fuel combusted and/or any combination.
 - 3) The sulfur content of each type of fuel burned. The sulfur content may be determined by fuel sampling and analysis or by fuel supplier certification.
- b. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

- c. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a monitoring device to determine the static pressure drop across the baghouse. This monitoring device will be read and this reading recorded once a day during the operation of the unit.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information for the baghouse:
 - 1) The design and/or manufacturer's specifications.
 - 2) The operational procedures and preventative maintenance records.
 - 3) Daily records of the pressure drop across the baghouse during all periods of operation.
 - 4) During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calendar day) log shall be kept of whether any air emissions were visible from the stack associated with the baghouse.
- b. A monthly fuel usage log shall be maintained showing the type and amount of fuels used each month. Fuel oils shall be identified by number (i.e., #2, #4, etc.) and fuel usage shall be expressed in gallons. Material Safety Data Sheets (MSDS) or material (fuel) analysis for sulfur content shall be maintained with the fuel usage log for all fuel oils purchased and used.
- c. All logs and MSDS or analysis sheets shall be kept on site for five (5) years from the date of last entry and shall be made available, upon request, for inspection by the Cabinet or the U.S. EPA.
- d. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F, Condition 2.
- e. A log shall be kept of all routine and non-routine maintenance performed on the control device.
- f. See 4. **Specific Monitoring Requirements** above for additional recordkeeping requirements.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8, 9, 10 and 11.

7. Specific Control Equipment Operating Conditions:

The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission point are in operation but the associated control equipment is not.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

COAL HANDLING:

- 08 (32) **Receiving Hopper (Barge Unloading)**
 (Maximum Process Rate – 500 tons/hour)
 (To Conveyor #C-1)
 Constructed: 1976
 Control: Water Spray
- (32) **Conveyor and Transfer Points (#C-1) (30" x 500')**
 (Maximum Process Rate – 500 tons/hour)
 (From Receiving Hopper to Transverse Conveyor)
 Constructed: 1976
 Control: Water Spray
- (32) **Conveyor and Transfer Points (#C-2) (30")**
 (Maximum Process Rate – 375 tons/hour)
 (From Coal Silos to Coal Bin #2 and Conveyor #C-3)
 Constructed: 1976
 Control: Water Spray
- (32) **Coal Bin #2**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-2 to Kiln #2)
 Constructed: 1976
 Control: Enclosure
- (32) **Conveyor and Transfer Points (#C-3) (30") (Reversible)**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-2 to Coal Bins #1 and #4 and Conveyor #C-4)
 Constructed: 1976
 Control: Water Spray
- (32) **Coal Bin #1**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-3 to Kiln #1)
 Constructed: 1976
 Control: Enclosure
- (32) **Coal Bin #4**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-3 to Kiln #4)
 Constructed: 1976

Control: Enclosure

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

COAL HANDLING: (CONTINUED)

- 08 (32) **Conveyor and Transfer Points (#C-4) (30")**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-3 to Coal Bin #3)
 Constructed: 1976
 Control: Water Spray
- (32) **Coal Bin #3**
 (Maximum Process Rate – 375 tons/hour)
 (From Conveyor #C-4 to Kiln #3)
 Constructed: 1976
 Control: Enclosure

ADDITIONS TO THE SOURCE:

COAL HANDLING:

- 24 (200) **Conveyor and Transfer Points (Transverse) (30")**
 (Maximum Process Rate – 500 tons/hour)
 (From Conveyor #C-3 to two Coal Silos)
 Constructed: 2004
 Control: Water Spray
- (200) **Coal Silo #1**
 (Maximum Process Rate – 500 tons/hour)
 (From Transverse Conveyor to Conveyor #C-2)
 Constructed: 2004
 Control: Enclosure
- (200) **Coal Silo #2**
 (Maximum Process Rate – 500 tons/hour)
 (From Transverse Conveyor to Conveyor #C-2)
 Constructed: 2004
 Control: Enclosure
- (-) **Receiving Hopper**
 (Maximum Process Rate – 500 tons/hour)
 (From Silos and Truck Dump to Conveyor #C-2)
 Constructed: 2004
 Control: Water Spray

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

Regulation 401 KAR 60:005, Standards of performance for new stationary sources, which incorporates by reference 40 CFR 60.250 (40 CFR 60, Subpart Y), applies to each of the affected facilities listed above.

1. Operating Limitations:

N/A

2. Emission Limitations:

Fugitive emissions from the two receiving hoppers, emission points 08 (32) and 24 (-); the five conveyor and transfer points, emission points 08 (32) and 24 (200); the six storage bins, emission points 08 (32) and 24 (200); shall not exhibit greater than twenty percent (20%) opacity, each, as specified in 40 CFR 60.252(c).

Compliance Demonstration Method:

In determining compliance with the opacity standards as listed above, the owner or operator shall use Method 9 and the procedures as described in 40 CFR 60.11.

3. Testing Requirements:

See Section G, Condition (d)5, 7, and 8.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the following parameters:
 - 1) The monthly production rate of raw material processed
 - 2) The monthly hours of operation (hours operated/month)
- b. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.

- c. See Section F, Condition 2.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

- a. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F, Condition 2.
- b. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- c. See Section F, Conditions 1 and 2.

6. Specific Reporting Requirements:

- a. See Section F, Conditions 5, 6, 7, 8, 9, 10 and 11.
- b. See Section G, Conditions (a)4 and 5, (d)2, and (f)1.

7. Specific Control Equipment Operating Conditions:

If any control method(s) proposed in the permit application prove to be inadequate to meet the emission requirements listed in the permit, the Division reserves the right to require additional controls, or another form of control, be utilized to meet the permit requirements.

8. Alternate Operating Schedule:

N/A

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

KILNS:

- 09 (36) Rotary Lime Kiln #1 / Pulverized Fuel Burner**
(KVS Kiln – 17' x 203')
(Kiln: Maximum Rated Capacity – 100 tons/hour of stone)
(Fuel: Pulverized Coal
Maximum Rated Capacity – 8.7 tons/hour)
Constructed: 1976
Control: Cyclone (Multiple)
(Flex-Kleen Model 35C-24 Cyclotrell Series 5)

Baghouse (Reverse-Air)
(American Air Filter Model Amertherm Collector)
- (38) Rotary Lime Kiln #2 / Pulverized Fuel Burner**
(KVS Kiln – 17' x 203')
(Kiln: Maximum Rated Capacity – 100 tons/hour of stone)
(Fuel: Pulverized Coal
Maximum Rated Capacity – 8.7 tons/hour)
Constructed: 1976
Control: Cyclone (Multiple)
(Flex-Kleen Model 35C-24 Cyclotrell Series 5)

Baghouse (Reverse-Air)
(American Air Filter Model Amertherm Collector)
- (40) Rotary Lime Kiln #3 / Pulverized Fuel Burner**
(KVS Kiln – 17' x 203')
(Kiln: Maximum Rated Capacity – 100 tons/hour of stone)
(Fuel: Pulverized Coal
Maximum Rated Capacity – 8.7 tons/hour)
Constructed: 1976
Control: Cyclone (Multiple)
(Flex-Kleen Model 35C-24 Cyclotrell Series 5)

Baghouse (Reverse-Air)
(American Air Filter Model Amertherm Collector)

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations, which applies to emission units constructed on or after July 2, 1975.

Regulation 401 KAR 61:035, Existing process gas streams, which applies to each of the affected facilities listed above constructed before June 6, 1979.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

40 CFR 63, Subpart AAAAA, National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, which applies to emission points 10 (36), (38), and (40) listed above. The compliance date for these emission points is no later than January 5, 2007.

1. Operating Limitations:

- a. Pursuant to 40 CFR 63, Subpart AAAAA, Table 2, a written operations, maintenance, and monitoring (OM&M) plan must be prepared. The plan must include the items listed in 40 CFR 63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.
- b. See 40 CFR 63, Subpart AAAAA, Table 2.

2. Emission Limitations:

- a. Pursuant to Regulation 401 KAR 59:010, Section 3(2) and Appendix A:

Emissions of particulate matter from rotary lime kilns #1, #2, and #3 [emission points 09 (36), (38), and (40)] shall not exceed 36.65 lbs/hr, each.

As determined by the following equations using the process weight rate (in units of tons/hr).

For process rates of 1,000 lbs/hr or less $E = 2.34$

For process rates up to 60,000 lbs/hr: $E = 3.59 P^{0.62}$

For process rates in excess of 60,000 lbs/hr: $E = 17.31 P^{0.16}$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hr

- b. Pursuant to Regulation 401 KAR 59:010, Section 3(1)(a), any continuous emissions into the open air shall not equal or exceed twenty percent (20%) opacity for each kiln.
- c. Pursuant to Regulation 401 KAR 61:035, Section 4, no person shall cause, suffer, allow, or permit the emission of sulfur dioxide in a process gas stream to exceed 239 grains per 100 dscf (2000 ppm by volume) at zero percent oxygen.
- d. Pursuant to Regulation 401 KAR 61:035, Section 5, no person shall cause, suffer, allow, or permit the emission of carbon monoxide in a process gas stream or a waste gas stream,

unless the gases are burned at 1300⁰ F for five-tenths (0.5) second or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

- e. Pursuant to 40 CFR 63, Subpart AAAAA, Table 1, PM emissions from each kiln must not exceed 0.12 lb/ton of stone feed (lb/tsf). This emission limit must be complied with by January 5, 2007.

Compliance Demonstration Method:

- a. Compliance with hourly emission limit shall be determined as follows:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 * / (Hours of operation per month)] x (1 – control efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that emission factor was derived must be submitted to the Division's Central Office for approval.

- b. Compliance with the opacity limits shall be determined as follows:

- 1) In determining compliance with the opacity standard as listed above, the owner or operator shall use Reference Method 9 and the procedures as described in 40 CFR 60.11.
- 2) If any of the emission units associated with a baghouse are in operation during any period of malfunction of the associated baghouse, the permittee shall determine compliance through maintenance of the records required by Item e. under **5. Specific Recordkeeping Requirements** below.

- c. In determining compliance with the sulfur dioxide emissions as listed above, the owner or operator shall use Reference Method 6.
- d. In determining compliance with the carbon monoxide emissions as listed above, the owner or operator shall use Reference Method 10.
- e. In determining initial compliance with the PM emissions refer to 40 CFR 63, Subpart AAAAA, Table 3. In determining continuous compliance with the operating limits refer to 40 CFR 63, Subpart AAAAA, Table 5.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**3. Testing Requirements:**

- a. Pursuant to Regulations 401 KAR 50:055, General compliance requirements; 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 59:010, Section 4, shall be conducted as required by the Division. The Reference Methods used to determine compliance with the aforementioned emission standards are as follows:
 - 1) Reference Method 1 – Selection of sample and velocity traverses.
 - 2) Reference Method 2 – Velocity and volumetric flow rate.
 - 3) Reference Method 3 – Gas analysis.
 - 4) Reference Method 9 – Opacity of continuous emissions.
 - 5) Reference Method 5 shall be used for the emission rates of particulate matter and the associated moisture content. For Reference Method 5:
 - a) Reference Method 1 – Select the sampling site and number of traverse sampling points.
 - b) Sampling time for each run shall be at least sixty (60) minutes.
 - c) Minimum sample volume shall be 0.85 dscm [thirty (30) dscf].
 - d) Smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the Cabinet.

See paragraph k. below of this Section for further testing requirements.

- b. Pursuant to Regulation 401 KAR 50:055, General compliance requirements; 401 KAR 50:045, Section 1, performance testing in accordance with EPA Method 6 for sulfur dioxide and EPA Method 10 for carbon monoxide shall be conducted as required by the Division. See paragraphs c. and k. below of this Section for further testing requirements.
- c. Pursuant to Regulation 401 KAR 61:035, Section 6(1), Reference Method 6 shall be used for sulfur dioxide.
 - 1) Reference Method 1 shall be used for velocity traverses.
 - 2) Reference Method 2 for determining velocity and volumetric flow rate.
 - 3) The sampling site for determining SO₂ concentration by Reference Method 6 shall be the same as for determining the volumetric flow rate by Reference Method 2.
 - 4) The sampling point in the duct for determining SO₂ concentration by Reference Method 6 shall be at the centroid of the cross section or at a point no closer to the walls than one (1) m [thirty-nine (39) inches] if the cross-sectional area is five (5) square meters or more and the centroid is more than one (1) meter from the wall.
 - 5) The sample shall be extracted at a rate proportional to the gas velocity at the sampling point.
 - 6) The minimum sampling time shall be ten (10) minutes and the minimum sampling volume 0.01 dscm (0.35 dscf) for each sample.

- 7) The arithmetic average of two (2) samples shall constitute one (1) run.
- 8) Three (3) runs will constitute compliance test.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements: (Continued)

- d. Pursuant to 40 CFR 63.7110(a), all applicable performance tests on an existing affected source must be completed by January 5, 2007, according to the provisions in 40 CFR 63.7(a)(2) and 40 CFR 63.7114.
- e. Pursuant to 40 CFR 63.7111, a performance test must be conducted within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.
- f. Pursuant to 40 CFR 63.7112(c), performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 63.7(e)(1).
- g. Pursuant to 40 CFR 63.7112(d), except for opacity and VE observations, three separate test runs must be conducted for each required performance test, as specified in 40 CFR 63.7(e)(3). Each test run must last at least one hour.
- h. Pursuant to 40 CFR 63.7112(h), the plan to be followed during testing must be made available to the Division at least 60 days prior to the testing.
- i. See Attachments, Table 3, for initial compliance with emission limits and Table 4 for performance test requirements under 40 CFR 63, Subpart AAAAA.
- j. See 40 CFR 63.7112 for additional performance test requirements.
- k. If no performance test(s) have been conducted on the above mentioned kilns in the five years prior to the issuance of this permit, then performance test(s) must be conducted within 180 days of permit issuance. If the test(s) show compliance with the standards set forth in 40 CFR 63, Subpart AAAAA, no further testing will be necessary to demonstrate initial compliance with this subpart. If performance test(s) have been conducted on the above mentioned kilns within five years prior to the issuance of this permit, those results must be forwarded to the Division for review. Initial compliance performance test(s) will then need to be conducted to demonstrate compliance with the standards set forth in 40 CFR 63, Subpart AAAAA by January 5, 2007.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the following parameters for Emission Points 09 (36), (38), and (40):
 - 1) The monthly amount of material placed in each kiln.

- 2) The monthly hours of operation (hours operated / month) of each kiln.
- 3) The monthly amount of lime produced from each kiln.
- 4) The hourly particulate emission rate.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

- b. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- c. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a monitoring device to determine the static pressure drop across each baghouse. This monitoring device will be read and this reading recorded once a day during the operation of the unit.
- d. Pursuant to 40 CFR 63.7113, the permittee must:
 - 1) Install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the OM&M plan required by 40 CFR 63:7100(d) and 40 CFR 63:7113(a)(1) through (5), and each continuous opacity monitoring system (COMS) as required by 40 CFR 63:7113(g).
 - 2) For each flow measurement device, meet the requirements in 40 CFR 63:7113(a)(1) through (5) and (b)(1) through (4).
 - 3) For each pressure measurement device, meet the requirements in 40 CFR 63:7113(a)(1) through (5) and (c)(1) through (7).
 - 4) For each bag leak detection system (BLDS), meet any applicable requirements in 40 CFR 63:7113(a)(1) through (5) and (d)(1) through (8).
 - 5) For each PM detector, meet any applicable requirements in 40 CFR 63:7113(a)(1) through (5) and (e)(1) through (8).
 - 6) For each emission unit equipped with an add-on air pollution control device, inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 2 and record the results of each inspection.

- 7) For each COMS used to monitor an add-on air pollution control device, meet the requirements in 40 CFR 63.7113(g)(1) and (2).

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

- e. See Attachments, Table 6, for additional monitoring requirements under 40 CFR 63, Subpart AAAAA.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information for the baghouses:
 - 1) The design and/or manufacturer's specifications.
 - 2) The operational procedures and preventative maintenance records.
 - 3) Daily records of the pressure drop across the baghouse during all periods of operation.
 - 4) During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calendar day) log shall be kept of whether any air emissions were visible from the stack associated with the baghouse.
- b. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F. Condition 2.
- c. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- d. See Section F, Conditions 1 and 2.
- e. See **4. Specific Monitoring Requirements** above for additional recordkeeping requirements.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 63.7112(h), performance test results must be documented in complete test reports that contain the information required by 40 CFR 63.7112(h)(1) through (10), as well as all other relevant information. The plan to be followed during testing must be made available to the Division at least 60 days prior to the testing.
- b. See Section F, Conditions 5, 6, 7, 8, 9, 10 and 11.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

- a. The baghouses associated with Emission Points 10 (36), (38), and (40) shall control particulate emissions and shall be in place, properly maintained, and in operation in accordance with the manufacturer's specifications and/or standard operating procedures at all times the associated emission point is in use. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated baghouse is not.
- b. See Section E, Condition 1.

8. Alternate Operating Scenarios:

N/A

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

KILNS:

- 10 (42) **Rotary Lime Kiln #4 / Pulverized Fuel Burner**
 (Fuller Kiln – 16' x 210')
 (Kiln: Maximum Rated Capacity – 92 tons/hour of stone)
 (Fuel: Pulverized Coal
 Maximum Rated Capacity – 8 tons/hour)
 Constructed: 1997
 Control: Baghouse (Pulse-Jet)
 [Amerex Industries
 Model: 7 Module Rex-Pulse RP-14-304 D6 (16 x 19)]

APPLICABLE REGULATIONS:

Regulation 401 KAR 60:005, Standards of performance for new stationary sources, which incorporates by reference 40 CFR 60.340 (40 CFR 60, Subpart HH), applies to the affected facility listed above.

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality, applies to the affected facility listed above.

40 CFR 63, Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, which applies to the emission unit listed above. The compliance date for this emission point is no later than January 5, 2007.

1. Operating Limitations:

- a. Lime production for the kiln shall not exceed 46 ton per hour.
- b. Fuel shall be coal. The coal will have a minimum heating value of 12,900 Btu/lb and a sulfur content not to exceed 0.9%.
- c. Pursuant to 40 CFR 63, Subpart AAAAA, Table 2, a written operations, maintenance, and monitoring (OM&M) plan must be prepared. The plan must include the items listed in 40 CFR 63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.
- d. See 40 CFR 63, Subpart AAAAA, Table 2.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:**

- a. Pursuant to Regulations 401 KAR 60:005 and 401 KAR 51:017:
 - 1) Particulate matter emissions from the kiln, emission point 10 (42), shall not exceed 0.60 lb/ton of stone feed [0.597 lb/ton of lime output (0.02 gr/acfm)]. [40 CFR 60.342(a)(1)]
 - 2) Visible emissions discharged into the atmosphere from each kiln shall not exceed 15 percent (15%) opacity when exiting from a dry emission control device. [40 CFR 60.342(a)(2)]
 - 3) Sulfur dioxide emissions from each kiln shall not exceed 25.097 lbs/hour.
 - 4) Nitrogen oxide emissions from each kiln shall not exceed 90.292 lbs/hour.
 - 5) Carbon monoxide emissions from each kiln shall not exceed 91.667 lbs/hour.
- b. Pursuant to 40 CFR 63, Subpart AAAAA, Table 1, PM emissions from the kiln must not exceed 0.12 lb/ton of stone feed (lb/tsf). This emission limit must be complied with by January 5, 2007.

Compliance Demonstration Method:

- a. Compliance with the particulate matter standards listed in a. 1) above shall be determined using the following equation:

$$E = (c_s Q_{sd}) / PK, \text{ where}$$

E = emission rate of particulate matter, lb/ton of stone feed

c_s = concentration of particulate matter, g/dscf

Q_{sd} = volumetric flow rate of effluent gas, dscf/hr

P = stone feed rate, ton/hr

K = conversion factor, 7000gr/lb

- 1) In determining the particulate matter concentration (c_s) and the volumetric flow rate (Q_{sd}) of the effluent gas:
 - a) Method 5 shall be used at negative-pressure fabric filters and other types of control devices and
 - b) Method 5D shall be used at positive-pressure fabric filters.

The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf.

- 2) The stone feed rate for each run shall be determined using the monitoring device

mentioned in **3. Testing Requirements** below.

- b. In determining compliance with the opacity standard listed in a. 2) above, the owner or operator shall use Reference Method 9 and the procedures as described in 40 CFR 60.11.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

Compliance Demonstration Method: (Continued)

- c. In determining compliance with the sulfur dioxide standard listed in a. 3) above, the owner or operator shall use Reference Method 6 as referenced in State Regulation 401 KAR 50:015, Section 1.
- d. In determining compliance with the nitrogen oxide standard listed in a. 4) above, the owner or operator shall use Reference Method 7 as referenced in State Regulation 401 KAR 50:015, Section 1.
- e. In determining compliance with the carbon monoxide standard listed in a. 5) above, the owner or operator shall use Reference Method 10 as referenced in State Regulation 401 KAR 50:015, Section 1.
- f. In determining compliance with the sulfur content limitation of the coal and/or petroleum coke the owner or operator may obtain certification from the supplier or a sample from each shipment must be tested to ensure compliance.
- g. In determining initial compliance with the PM emissions refer to 40 CFR 63, Subpart AAAAA, Table 3. In determining continuous compliance with the operating limits refer to 40 CFR 63, Subpart AAAAA, Table 5.

3. Testing Requirements:

- a. Pursuant to 40 CFR 60.343(d), for the purpose of conducting a performance test, the owner or operator shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the rotary lime kiln. The measuring device used must be accurate to within ± 5 percent of the mass rate over its operating range.
- b. Pursuant to Regulation 401 KAR 50:055, General compliance requirements; 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Method 5 for particulate matter as specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division. See paragraph k. below of this Section for further testing requirements.
- c. Pursuant to Regulation 401 KAR 50:055, General compliance requirements; 401 KAR 50:045, Section 1, performance testing in accordance with EPA Method 6 for sulfur dioxide, EPA Method 7 for nitrogen oxide, and EPA Method 10 for carbon monoxide as specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

See paragraph k. below of this Section for further testing requirements.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements: (Continued)

- d. Pursuant to 40 CFR 63.7110(a), all applicable performance tests on an existing affected source must be complete by January 5, 2007, according to the provisions in 40 CFR 63.7(a)(2) and 40 CFR 63.7114.
- e. Pursuant to 40 CFR 63.7111, a performance test must be conducted within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.
- f. Pursuant to 40 CFR 63.7112(c), performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 63.7(e)(1).
- g. Pursuant to 40 CFR 63.7112(d), except for opacity and VE observations, three separate test runs must be conducted for each required performance test, as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour.
- h. Pursuant to 40 CFR 63.7112(h), the plan to be followed during testing must be made available to the Division at least 60 days prior to the testing.
- i. See Attachments, Table 3, for initial compliance with the emission limits; and Table 4, for performance test requirements under 40 CR 63, Subpart AAAAA.
- j. See 40 CFR 63.7112 for additional performance test requirements.
- k. If no performance test(s) have been conducted on the above mentioned kiln in the five years prior to permit issuance, then performance test(s) will be done within 180 days of permit issuance. If the test(s) show compliance with the standards set forth in 40 CFR 63, Subpart AAAAA, no further testing will be necessary to demonstrate initial compliance with this subpart. If performance test(s) have been conducted on the above mentioned kiln within five years prior to the issuance of this permit, those results must be forwarded to the Division for review, and initial compliance performance test(s) will need to be conducted to demonstrate compliance with the standards set forth in 40 CFR 63, Subpart AAAAA by January 5, 2007.

4. Specific Monitoring Requirements:

- a. Pursuant to 40 CFR 60.343(a), the owner or operator shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln. The span of this system shall be set at 40 percent (40%) opacity.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

- b. The permittee shall monitor and maintain records of the following parameters for Emission Point 10 (30):
 - 1) The monthly amount of material placed in the kiln.
 - 2) The monthly hours of operation (hours operated / month) of the kiln.
 - 3) The monthly amount of lime produced from the kiln.
- c. Pursuant to 40 CFR 63.7113, the permittee must:
 - 1) Install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the OM&M plan required by 40 CFR 63:7100(d) and 40 CFR 63:7113(a)(1) through (5), and each continuous opacity monitoring system (COMS) as required by 40 CFR 63:7113(g).
 - 2) For each flow measurement device, meet the requirements in 40 CFR 63:7113(a)(1) through (5) and (b)(1) through (4).
 - 3) For each pressure measurement device, meet the requirements in 40 CFR 63:7113(a)(1) through (5) and (c)(1) through (7).
 - 4) For each bag leak detection system (BLDS), meet any applicable requirements in 40 CFR 63:7113(a)(1) through (5) and (d)(1) through (8).
 - 5) For each PM detector, meet any applicable requirements in 40 CFR 63:7113(a)(1) through (5) and (e)(1) through (8).
 - 6) For each emission unit equipped with an add-on air pollution control device, inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 2 and record the results of each inspection.
 - 7) For each COMS used to monitor an add-on air pollution control device, meet the requirements in 40 CFR 63:7113(g)(1) and (2).

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information for the baghouse:
 - 1) The design and / or manufacturer's specifications.
 - 2) The operational procedures and preventative maintenance records.
 - 3) During all periods of startup, shutdown, or malfunction of the baghouse, a daily

(calendar day) log shall be kept of whether any air emissions were visible from the stack associated with the baghouse.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements: (Continued)

- a. 4) If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- b. Records shall be maintained of any 6-minute average that is in excess of the emissions specified by a. under **2. Emissions Limitations**.
- c. If 40 CFR 60.343(b) applies, the opacity shall be recorded for any point(s) where visible emissions are observed for at least three 6-minute periods. The corresponding feed rate of the kiln shall also be recorded.
- d. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F, Condition 2.
- e. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- f. See **4. Specific Monitoring Requirements** above for additional recordkeeping requirements.
- g. See Section F, Conditions 1 and 2.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 60.343(e), the owner or operator shall submit reports of excess emissions of all 6-minute periods during which the average opacity of the visible emissions from any lime kiln utilizing a continuous monitoring system is greater than 15 percent.
- b. Pursuant to 40 CFR 60.343(e), if visible emission observations are made by a certified visible emissions observer performing a Method 9 test, reports of excess emissions shall be submitted semiannually.
- c. See Section F, Conditions 5, 6, 7, 8, 9, 10 and 11.
- d. See 40 CFR 63.7131 for additional reporting requirements.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Requirements:

All pollution control devices associated with Emission Point 10 (42) shall be in place, properly maintained, and in operation in accordance with the manufacturer's specifications and/or operating procedures at all times the associated emission points are in use. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission point is in operation but the associated baghouse is not.

8. Alternate Operating Scenarios:

N/A

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

LIME HANDLING:

Kiln Baghouse Loadout:

- | | | |
|--|------|--|
| 11 | (48) | Bucket Elevator (Dust Bin)
(Maximum Process Rate – 150 tons/hour)
(From Cyclone and Baghouse to Dust Bin)
Constructed: 1978
Control: Baghouse (Reverse-Air)
(American Collector) |
| | (48) | Dust Bin
(Maximum Process Rate – 150 tons/hour)
(From Bucket Elevator to Truck Loadout)
Constructed: 1978
Control: Baghouse (Reverse-Air)
(American Collector) |
| | (48) | Truck Loadout (From Kiln Dust Bin)
(Maximum Process Rate – 150 tons/hour)
Constructed: 1978
Control: Baghouse (Reverse-Air)
(American Collector) |
| <u>Discharge of Kilns #1, #2, #3 and #4 to Reject System:</u> | | |
| 12 | (49) | Conveyor and Transfer Points (#L-1) (24" x 400')
(Maximum Process Rate – 260 tons/hour)
(From Kilns #1, #2, #3 and #4 to Conveyors #L-2 and #R-2)
Constructed: 1976
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72) |
| | (49) | Conveyor and Transfer Points (#R-1) (24" x 400')
(Maximum Process Rate – 260 tons/hour)
(From Kilns #1, #2, #3 and #4 to Conveyors #L-2 and #R-2)
Constructed: 1976
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72) |

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIME HANDLING:****Discharge of Kilns #1, #2, #3 and #4 to Reject System:**

- 12 (52) **Conveyor and Transfer Points (#R-2) (24" x 250')**
(Maximum Process Rate – 260 tons/hour)
(From Conveyors #L-1 and #R-1 to Reject Bin)
Constructed: 1995
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-81)
- (52) **Reject Bin**
(Maximum Process Rate – 60 tons/hour)
(From Conveyor #R-2 to Conveyors #R-3 and #R-4)
Constructed: 1995
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-81)
- (52) **Conveyor and Transfer Points (#R-4) (24" x 100')**
(Maximum Process Rate – 60 tons/hour)
(From Reject Bin to Reject System Building)
Constructed: 1995
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-81)

Discharge of Kilns #1, #2, #3 and #4 and Reclaim System to Storage Silos:

- 15 (54) **Conveyor and Transfer Points (#L-2) (24" x 350')**
(Maximum Process Rate – 260 tons/hour)
(From Conveyors #L-1, #R-1, #L-13 and #L-15 to Conveyor #L-3)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-54)
- (56) **Conveyor and Transfer Points (#L-3) (24" x 675')**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-2 to Conveyor #L-4 and Storage Silo #2)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-252)

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIME HANDLING: (CONTINUED)****Discharge of Kilns #1, #2, #3 and #4 and Reclaim System to Storage Silos:**

- 15 (56) **Conveyor and Transfer Points (#L-4) (24" x 160')**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-3 to Storage Silos #1 and #3)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-252)

From Storage Silos to Screening Operation and Loadouts:

- 17 (58) **Storage Silo #1 (Lime)**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-4 to Conveyor #L-5)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-324)
- (58) **Storage Silo #2 (Lime)**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-3 to Conveyor #L-5)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-324)
- (58) **Storage Silo #3 (Lime)**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-4 to Conveyor #L-5)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-324)
- (58) **Conveyor and Transfer Points (#L-5) (42" x 600')**
(Maximum Process Rate – 1140 tons/hour)
(From Storage Silos #1, #2 and #3 to Conveyors #L-6 and #L-7)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-324)

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**LIME HANDLING: (CONTINUED)****From Storage Silos to Screening Operation and Loadouts: (Continued)**

- 17 (60) **Conveyor and Transfer Points (#L-6) (42" x 400')**
(Maximum Process Rate – 1140 tons/hour)
(From Conveyor #L-5 to Conveyor #L-6A)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-108)
- (60) **Conveyor and Transfer Points (#L-6A) (42" x 150')**
(Maximum Process Rate – 1140 tons/hour)
(From Conveyor #L-6 to Barge Loadout)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-108)
- (60) **Barge Loadout (From Conveyor #L-6A)**
(Maximum Process Rate – 1140 tons/hour)
Constructed: 1976
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4509-108)
- (62) **Conveyor and Transfer Points (#L-7) (24" x 300')**
(Maximum Process Rate – 1140 tons/hour)
(From Conveyor #L-5 to Screening Building and Conveyor #L-9)
Constructed: 1995
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4595-288)
- (62) **Screen (Fairfield 8' x 20' Double-Deck)**
(Maximum Rated Capacity – 520 tons/hour)
(From Conveyor #L-7 to Conveyors #L-9 and #L-13)
Constructed: 1995
Control: Baghouse (Pulse-Air)
 (Western Precipitation Model PF 4595-288)
- (64) **Conveyor and Transfer Points (#L-13) (24" x 50')**
(Maximum Process Rate – 520 tons/hour)
(From Fairfield Screen to Conveyor #L-2)

Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4595-288)

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

LIME HANDLING: (CONTINUED)

From Storage Silos to Screening Operation and Loadouts: (Continued)

- 17 (66) **Conveyor and Transfer Points (#L-9) (36" x 15')**
(Maximum Process Rate – 520 tons/hour)
(From Fairfield Screen to Conveyor #L-10)
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4595-81)
- (66) **Conveyor and Transfer Points (#L-10) (36" x 15')**
(Maximum Process Rate – 520 tons/hour)
(From Conveyor #L-9 to Storage Bin)
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4595-81)
- (66) **Storage Bin (3/4 x 8m)**
(Maximum Process Rate – 520 tons/hour)
(From Conveyor #L-10 to Conveyors #L-11 and #L-15)
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4595-81)
- (70) **Conveyor and Transfer Points (#L-11) (36" x 75')**
(Maximum Process Rate – 540 tons/hour)
(From Storage Bin to Conveyor #L-12)
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72)
- (70) **Conveyor and Transfer Points (#L-12) (24" x 225')**
(Maximum Process Rate – 260 tons/hour)
(From Conveyor #L-11 to Railcar or Truck Loadout)
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72)
- (70) **Truck Loadout (From Conveyor #L-12)**
(Maximum Process Rate – 260 tons/hour)

Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72)

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

LIME HANDLING: (CONTINUED)

From Storage Silos to Screening Operation and Loadouts: (Continued)

17 (70) **Railcar Loadout (From Conveyor #L-12)
(Maximum Process Rate – 260 tons/hour)**
Constructed: 1995
Control: Baghouse (Pulse-Air)
(Western Precipitation Model PF 4509-72)

APPLICABLE REGULATIONS:

State Regulation 401 KAR 59:010, New process operations, which applies to emission units constructed on or after July 2, 1975.

State Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applies to each of the affected facilities listed above constructed after September 22, 1982.

1. Operating Limitations:

None

2. Emission Limitations:

- a. Pursuant to Regulation 401 KAR 59:010, the particulate emissions from each of the affected facilities listed below are limited as follows:
 - 1) Emissions of particulate matter from the Kiln Baghouse Loadout (bucket elevator, dust bin, and truck loadout) [emission points 11 (48)] shall not exceed 38.59 lbs/hour, each.
 - 2) Emissions of particulate matter from the five conveyor and transfer points, #L-1, #R-1, #L-2, #L-3, and #L-4, [emission points 12 (49), 16 (54), and (56)] shall not exceed 42.14 lbs/hour, each.
 - 3) Emissions of particulate matter from the three lime storage silos, #1, #2, and #3 [emission points 17 (58)] shall not exceed 42.14 lbs/hour, each.
 - 4) Emissions of particulate matter from the three conveyor and transfer points, #L-5, #L-6, and #L-6A [emission points 17 (58) and (60)] shall not exceed 53.38 lbs/hour, each.

- 5) Emissions of particulate matter from the one barge loadout [emission point 17 (60)] shall not exceed 53.38 lbs/hour.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

- a. As determined by the following equations using the process weight rate (in units of tons/hr).

For process rates of 1,000 lbs/hr or less $E = 2.34$

For process rates up to 60,000 lbs/hr: $E = 3.59 P^{0.62}$

For process rates in excess of 60,000 lbs/hr: $E = 17.31 P^{0.16}$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hr

- b. Pursuant to Regulation 401 KAR 51:017, the particulate emissions from each of the affected facilities listed below are limited as follows:
- 1) Emissions of particulate matter from the two conveyor and transfer points, #R-2 and #R-4 [emission point 12 (52)] shall not exceed 0.009 lbs/hour, each.
 - 2) Emissions of particulate matter from the one reject bin [emission point 12 (52)] shall not exceed 0.009 lbs/hour.
 - 3) Combined emissions of particulate matter from the two conveyor and transfer points (#L-7 and #L-13) and the one screen [emission point 17 (62) and (64)] shall not exceed 0.10 lbs/hour.
 - 4) Combined emissions of particulate matter from the two conveyor and transfer points (#L-9 and #L-10) and the one storage bin (3/4 x 8m) [emission points 17 (66)] shall not exceed 0.156 lbs/hour.
 - 5) Combined emissions of particulate matter from the two conveyor and transfer points (#L-11 and #L-12), the one truck loadout, and one railcar loadout [emission points 17 (70)] shall not exceed 0.065 lbs/hour.
- c. Pursuant to Regulation 401 KAR 59:010, Section 3, any continuous emissions into the open air shall not equal or exceed twenty percent (20%) opacity.
- d. Pursuant to Regulation 401 KAR 51:017, the opacities for all applicable points, emission points 12 (52), 17 (62), (64), (66), and (70); shall not equal or exceed twenty percent (20%).

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

Compliance Demonstration Method:

- a. Compliance with the hourly process emission limit shall be determined as follows:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 * / (Hours of operation per month)] x (1 – control efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that emission factor was derived must be submitted to the Division's Central Office for approval within 6 months of issuance of the proposed permit.

- b. Compliance with the opacity limits shall be determined as follows:

- 1) In determining compliance with the opacity standard as listed above, the owner or operator shall use Reference Method 9 and the procedures as described in 40 CFR 60.11.
- 2) If any of the emission units associated with a baghouse are in operation during any period of malfunction of the associated baghouse, the permittee shall determine compliance through maintenance of the records required by Item e. under **5. Specific Recordkeeping Requirements** below.

3. Testing Requirements:

Pursuant to Regulations 401 KAR 50:055, General compliance requirements; 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 59:010, Section 4, shall be conducted as required by the Division. The Reference Methods used to determine compliance with the aforementioned emission standards are as follows:

- a. Reference Method 1 – Selection of sample and velocity traverses.
- b. Reference Method 2 – Velocity and volumetric flow rate.
- c. Reference Method 3 – Gas analysis.
- d. Reference Method 9 – Opacity of continuous emissions.
- e. Reference Method 5 shall be used for the emission rates of particulate matter and the associated moisture content. For Reference Method 5:
 - 1) Reference Method 1 – Select the sampling site and number of traverse sampling points.
 - 2) Sampling time for each run shall be at least sixty (60) minutes.
 - 3) Minimum sample volume shall be 0.85 dscm [thirty (30) dscf].

- 4) Smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the Cabinet.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the following parameters:
 - 1) The monthly production rate of raw material processed.
 - 2) The monthly hours of operation (hours operated/month)
 - 3) The hourly pollutant emission rates.
- b. Observations are required during each shift, and when any change in method of operation or material occurs, of all operations and control equipment to determine if any air emissions are visible from the equipment or the controls. These observations will be done at any processing rate of the equipment that would preclude circumvention of the intent of this requirement. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluation. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.
- c. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a monitoring device to determine the static pressure drop across each baghouse. This monitoring device will be read and this reading recorded once a day during the operation of the unit.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following information for the dust collector:
 - 1) The design and/or manufacturer's specifications.
 - 2) The operational procedures and preventative maintenance records.
 - 3) Daily records of the pressure drop across the baghouse during all periods of operation.
 - 4) During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calendar day) log shall be kept of whether any air emissions were visible from the stack associated with the baghouse.
- b. Records of opacity monitoring data, including daily observations, and support information shall be kept in accordance with the provisions of Section F. Condition 2.
- c. A log shall be kept of all routine and non-routine maintenance performed on each control device.
- d. See Section F, Conditions 1 and 2.

- e. See 4. **Specific Monitoring Requirements** above for additional recordkeeping requirements.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8, 9, 10, and 11.

7. Specific Control Equipment Operating Requirements:

If any control method(s) proposed in the permit application prove to be inadequate to meet the emission requirements listed in the permit, the Division reserves the right to require additional controls, or another form of control, be utilized to meet the permit requirements.

8. Alternate Operating Schedule:

N/A

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Description

Generally Applicable Regulation

None

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for issuing Title V Permits* incorporated by reference in Regulation 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. All fugitive emissions shall be controlled in accordance with Regulation 401 KAR 63:010.

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Sections 1b (IV)2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours, or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Division's Florence Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the

continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of Regulation 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. All deviations from permit requirements shall be clearly identified in the reports.

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

7. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Florence Regional Office concerning startups, shutdowns, or malfunctions as follows
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Division for Air Quality's Florence Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Section 1b (V)3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
9. Pursuant to Regulation 401 KAR 52:020, Title V Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the Regional Office) to the Division for Air Quality's Florence Regional Office and the U.S. EPA in accordance with the following requirements:
 - a. Identification of each term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status of the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Florence Regional Office
8020 Veterans Memorial Dr.
Suite 110
Florence, KY 41042

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with Regulation 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30)

days of the date the KYEIS emission survey is mailed to the permittee.

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five (45) days after the completion of the fieldwork.

SECTION G – GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of Regulation 401 KAR 52:020 and the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit. [Section 1a 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with Regulation 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U.S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking, and reissuing, or terminating the permit; or compliance with the conditions of this permit. [Section 1a, 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [401 KAR 52:020, Section 7(1)]

SECTION G – GENERAL PROVISIONS

(a) General Compliance Requirements (Continued)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal action or other action shall not invalidate any other portion or condition of this permit. [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in Regulation 401 KAR 50:038, Section 3(6). [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]
11. This permit does not convey property rights or exclusive privileges. [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Environmental and Public Protection Cabinet or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]
15. This permit consolidates the authority of any previous issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G – GENERAL PROVISIONS

(a) General Compliance Requirements (Continued)

16. Pursuant to Regulation 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of a required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:020, Section 12]
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets. [401 KAR 52:020, Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G – GENERAL PROVISIONS

(d) Construction, Start-up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Ashland Regional Office in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to Regulation 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to Regulation 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section 1 of this permit or order of the Cabinet.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated, but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements.
6. Terms and conditions in this permit established pursuant to the construction authority of Regulation 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G – GENERAL PROVISIONS

(d) Construction, Start-up, and Initial Compliance Demonstration Requirements (Continued)

7. Pursuant to section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.
8. Pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to Regulation 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to Regulations 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state, or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

SECTION G – GENERAL PROVISIONS

(g) Risk Management

1. The permittee shall comply with all applicable requirements of Regulation 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone Depleting Substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined in 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditiones*.

SECTION H – ALTERNATE OPERATING SCENARIOS

The burning of petcoke is considered by the US EPA as an alternative fuel or raw material, and its use therefore, is a change in the method of operation. Whether or not the use of the altenative fuel or

raw material would be exempt from being considered a modification depends on whether the source was capable of accommodating its use prior to January 6, 1975. Therefore, before the Division will authorize the burning of petcoke in Kilns #1, #2, or #3 the following documentation must be submitted for review by the Division:

- 1) Documentation to demonstrate that the equipment was designed to use the petcoke prior to January 6, 1975.
- 2) Alternatively, provide information to demonstrate that the potential emission increase associated with the proposed modification would not equal or exceed the PSD significant levels.

If the documentation cannot be provided, then a PSD review and request for a permit modification will need to be submitted to the Division for review before authorization to burn petcoke in Kilns #1, #2, and #3, is approved. A PSD review and request for a permit modification will need to be submitted to the Division for review before authorization to burn petcoke in Kiln #4 is approved.

SECTION I – COMPLIANCE SCHEDULE

Carmeuse Lime & Stone, Inc must submit the requested information listed under **Section H – Alternative Operating Scenarios** concerning the burning of petroleum coke in the older kilns (Kilns #1, #2, and #3) within ninety (90) calendar days of the issuance date of the Proposed Permit.